

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 7 (Cancelled).

8. (New) A relative pressure sensor, or pressure-difference sensor, comprising:
a measuring apparatus having:
a first half-chamber defining a first volume;
a first separating membrane for sealing said first half-chamber, and
having a first membrane stiffness;
a second half-chamber defining a second volume;
a second separating membrane for sealing said second-half chamber, and
having a second membrane stiffness; and
a measuring membrane which separates said first half-chamber is separated
from said second half-chamber wherein:
said first-half chamber is filled with a transfer liquid having a first coefficient of
thermal expansion, and said second half-chamber is filled with a second transfer liquid
having a second coefficient of thermal expansion;
a first product of said first membrane stiffness, said first volume and said first
coefficient of thermal expansion is essentially equal to a second product of said second
membrane stiffness, said second volume and said second coefficient of thermal
expansion; and
at least one factor of said first product deviates, by design, from the
corresponding factor of said second product.

9. (New) The relative pressure sensor as claimed in claim 8, wherein:
said first membrane stiffness deviates from said second membrane stiffness.

10. (New) The relative pressure sensor as claimed in claim 8, wherein:
said first volume deviates from said second volume.

11. (New) The relative pressure sensor as claimed in claim 8, wherein:
said first coefficient of thermal expansion deviates from said second coefficient
of thermal expansion.

12. (New) The relative pressure sensor as claimed in claim 8, wherein:
said first coefficient of thermal expansion is equal to said second coefficient of
thermal expansion.

13. (New) The relative pressure sensor as claimed in one of the claims 8,
further comprising:
at least one mechanism for fine tuning volume in a half-chamber.

14. (New) The pressure sensor as claimed in claim 12, further comprising:
mechanisms for fine tuning volume in each of said two half-chambers.